



COMPUTER ART BY DICK SKOVER



MILATARI NEWSLETTER



VOL 4 NBR 5

APRIL 1985

PRICE \$1.50

APRIL CALENDAR

April 11th	7:30PM	CP/M-ATR8000 SIG meeting
April 18th	7:30PM	Board of Directors meeting Chris Stieber's home
April 20th	1:45PM	MILATARI East (Armbruster School)
	2:00PM	BASIC Class - Graphics
	2:30PM	Workshop - Erik Hanson Number Bases and working with different bases on computers
	3:30PM	Assembler SIG meeting
		BRODERBUND SOFTWARE - see outline on page 3
April 25th	7:30PM	MILATARI West (Waukesha State Bank)

SELL IT YOURSELF!

The USER-TO-USER Software Catalogue will offer low cost advertising for programmers who wish to sell directly to users. It will include an appendix of user groups. It will support Atari and several other personal computers. All types of programs are welcome, but should be priced between \$5 and \$20. The catalogue (\$3-\$4) will be advertised in national computer magazines. Advertising rates are \$15 for up to 100 words to run for 3 months. Club listings will be \$6 per quarter. The first issue will be released in the summer of 1985. Ads must be placed by April 30, with a special price before March 15. For more information, send a business sized SASE to:

USER-TO-USER
P.O. Box 2605
Eugene, OR 97402

LABEL PRINTER

Mike Mitchell is sysop of the Night Line BBS (11 pm - 8 am, (313) 525-5172) in Garden City, MI. This utility will print individual mailing labels and allows on-screen previewing.

```
0 GRAPHICS 2:POKE 710,0:POKE 752,1
11 POSITION 2,4:? #6;"mailing"
12 POSITION 12,4:? #6;"labels"
13 POSITION 0,7:? #6;"-----"
15 ? :? "By Mike Mitchell * November 1
1, 1984"
16 FOR DE=1 TO 150:NEXT DE
17 FOR RB=1 TO 250:POKE 711,RB:SOUND 0
,RB,8,8:NEXT RB:SOUND 0,0,0,0
18 FOR SC=1 TO 4:PRINT :NEXT SC:? "
With on Screen 'Print Preview':? :SOU
ND 0,75,10,8:FOR DE=1 TO 50:NEXT DE
19 SOUND 0,0,0,0:FOR DE=1 TO 700:NEXT
DE:GRAPHICS 0
20 ? "(CLEAR)":GOSUB 1000:POKE 764,60:
POKE 710,224:POKE 712,224:DIM N$(30),S
$(30),CS$(30)
```

```
24 POSITION 9,1:? " * MAILING LABELS * "
25 POSITION 1,3:? -----
26 POSITION 1,6:? "Name";:INPUT N$
27 POSITION 1,8:? "St.";;INPUT S$
28 POSITION 1,10:? "C,S & Zip";:INPUT
CS$
29 POKE 764,255
30 POKE 752,1:POSITION 2,15:? "Display
-> Screen Printer New Quit"
31 R=PEEK(764):IF R>62 THEN 33
32 GOTO 100
33 R=PEEK(764):IF R>10 THEN 35
34 GOTO 200
35 R=PEEK(764):IF R>35 THEN 37
36 GOTO 300
37 R=PEEK(764):IF R>47 THEN 31
38 GOTO 400
100 POKE 764,255
101 POSITION 12,18:PRINT N$
102 POSITION 12,19:PRINT S$
103 POSITION 12,20:PRINT CS$
104 POSITION 2,19:? "Preview->"
105 GOTO 31
200 POKE 764,255
201 POSITION 12,22:? "Now Printing "
205 TRAP (500):LPRINT N$;LPRINT S$;LPR
INT CS$;LPRINT :LPRINT :LPRINT
215 POSITION 12,22:PRINT "(DELETE)(DEL
E)(DELETE)(DELETE)(DELETE)(DELETE)(D
ELETE)(DELETE)(DELETE)(DELETE)(DELETE)
(DELETE)(DELETE)(DELETE)(DELETE)":GOTO
31
300 ? "(CLEAR)":? "(BELL)":POKE 764,25
5:POKE 752,0:GOTO 24
400 PRINT "(CLEAR)":PRINT "(BELL)":POK
E 764,124:POKE 752,0:POKE 710,148:NEW
:END
500 FOR RP=1 TO 3:POSITION 10,22:? "T
urn on Printer! ":SOUND 0,50,10,8:FOR
DE=1 TO 75:NEXT DE
501 SOUND 0,75,10,8:FOR DE=1 TO 75:NEX
T DE:NEXT RP
502 POSITION 10,22:? "(DELETE)(DELETE)
(DELETE)(DELETE)(DELETE)(DELETE)(DELE
TE)(DELETE)(DELETE)(DELETE)(DELETE)(D
ELETE)(DELETE)(DELETE)":SOUND 0,0,0,0:GOTO 31
1000 REM Disable Break Key
1010 POKE 16,64:POKE 53774,64
1020 RETURN
```



MEETING OUTLINE

Demonstration of: Spelunker
Stealth
Whistler's Brother
The Print Shop

The seminar will demonstrate the versatility and the ease of use of all Broderbund Software. Due to our success in the industry, Broderbund is well known for entertainment software throughout the world. What we're doing now is announcing a new direction! We have five new lines of software, which we expect to broaden our appeal and attract new users. The five different lines are:

- Personal Productivity
 - Includes Bank Street Writer, Bank Street Speller, and other Bank Street products.
- Entertainment
 - Includes arcade games, adventure games.
- Creative Workshop Series
 - Includes The Print Shop and Dazzle Draw.
- Explorations
 - Includes Science Tool Kit, Welcome Aboard, and Where In The World Is Carmen Sandiego.
- Pathways
 - Includes What Color Is Your Parachute.

The second part of the seminar will be devoted to all the programmers in the group who would be interested in having their software published. We would like to show them what we look for in our products and what we offer to our programmers in terms of technical assistance and professional guidance.

Broderbund will be giving your group a sneak preview of software that hasn't yet been released. Broderbund will also furnish a door prize.

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SUPER LOADER

Instructions for disk menu/directory utility.
by Thomas Wuttke

(Editors note: Tom describes how to use a disk menu/directory program he has developed. He used Atari's Assembler Editor to develop the program. The source code takes up 170 sectors. The assembled program will be distributed on all future club disk releases.)

This is a self-running program. Use it to title disks, run programs and make a nice looking directory for a disk.

When the menu comes up, one of the files will be a bright white. This is like a cursor. Move the white box up and down with a joystick or with the option and select keys. For a quicker movement, press the letter or number key corresponding to the letter or number next to the file name.

To run the file, press START, FIRE or RETURN. The system will automatically recognize binary files and load them appropriately.

If the file is a BASIC file, XL BASIC will automatically turn on and the BASIC program will start loading. If your computer is not an XL, you must insert the BASIC cartridge and reboot the system.

If the file is not BASIC or binary, and has an extension like DOC, it will be considered a documentation file. It will load in and be displayed on a Graphics 0 screen. Press the space bar at any time to pause or resume scrolling of the screen. Press the START key at any time to return to the disk's directory. If the file is not a DOC, BASIC or BINARY file, an error message will appear.

When you run a file, the filename is scrolled up to the top of the screen, and then it begins loading. If you wish to reject the file before it starts loading, press ESC.

If there are more items in the directory than will fit on the screen, you can view them by moving your cursor down. The screen will fine scroll up or down so that all the files may be seen.

With the BASIC utility program included (D1:BOTMAKE) you can:

1. Create an AUTORUN.SYS file.
2. Format and write DOS.SYS.
3. Copy an old file on a new disk.
4. Edit a disk message.

You can edit a message and then have it appear on a disk. You can also change four (4) file name extensions that you would not like to appear on the disk's directory (like DAT).

You can also make up 3 extensions that your documentation is under (DOC, TXT, 22).

* * * * *

Attention Atari User Groups: Tom has placed his program into the public domain. We will be happy to supply a copy for your membership. Please send us a disk containing a selection of programs from your clubs library. We will return your disk with the menu/directory program and a selection from our disk library. Send your disk to:

Carl Mielcarek
6933 W. Glenbrook Road
Milwaukee, WI 53223

* * * * *

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PRESIDENT'S RAM

by Gary Nolan

IIIIIIII'M OFF TO SEE THE WIZARD

Not really the wizard so much as his toys. This is being written a week before I take off for San Francisco and the West Coast Computer Faire. As I mentioned at the last meeting Atari pulled out of the show because of manpower constraints. The new computers will be shown by the San Leandro Atari Users Group at their booth. And before I get too far along I'd like to thank Tom Lyskawa who donated the plane tickets that allowed me to get there and back. **THANKS TOM!!** I'll have a complete report on the WCCF and the main reason for the trip. That being to attend Antic magazine's meeting of user group representatives and Atari VIP's. According to Antic they sent invitations to 125 groups to attend this meeting, which is being billed as a two hour panel discussion with (this is their claim) Jack and Sam Tramiel, Sig Hartman, Neal Harris and other Atari Execs. Hopefully we will get answers to the questions of group support and customer service. And after talking to Sig Hartmann and Neal Harris it does sound as if Atari Corp. is going to try and establish good communications with the groups. Neal mentioned some of the **things they are working on and will be** included in my follow-up report at the April meeting and in next month's newsletter.

Those people with an interest in computers and related products beyond Atari, take note. On July 15-18 the NCC (National Computer Conference) will be held at McCormick Place in Chicago. This is the CES of the computer industry and is something to see. If you'd like to attend you can call 1-800-NCC-1985 and ask for a registration form. You'll have to pay to get in and the amount depends on what you want. Full conference and exhibit (all four days) package is \$125. Single day C&E is \$50, and exhibits only for all four days is \$50. So take your pick and be prepared to see some

equipment that will blow you away. And while on the subject of shows, the dates for the Summer CES are June 2-5, that's Sunday through Wednesday. Looks like a busy spring and summer.

BRODERBUND IS COMING

BRODERBUND IS COMING

(ECT..ECT..ECT)

Yes, Broderbund Software's traveling road show is coming to town and will be at the April meeting of Milatari East (you know, the one at Ambruster). Broderbund has a rep who travels around the country visiting user groups and demoing some of their products. One of the products they will be showing, and one you **WILL WANT** to see, is The Print Shop. This program lets you make signs, greeting cards, letter heads and a lot more. It's one of those programs that everyone with a printer should have. There are more things to do with a printer than put out letters you know. Anyway it looks like a very interesting meeting. There will be door prizes and maybe even some discounts on the software. So plan on being at the April 20th meeting.

OK! WE MADE IT EASIER! NOW WILL YOU DO IT?

Dave found a volunteer to help with the newsletter, now those of you who were afraid of getting stuck with the whole thing can step forward and help take up the slack. It's for a worthy cause (THE CLUB) and it can be both fun and rewarding. Lets not leave this person hanging out there all alone. **VOLUNTEER!**

The election committee has three candidates for office but still needs a secretary. Seems like those who've been mentioned and asked can't take it on right now. Help us fill an empty space and take the job. It's not really hard and doesn't take up a whole lot of your time and helps a lot of people.

(Continued on next page)

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PRESIDENT'S RAM

I TOLD YA SO

About a year back I mentioned that laser printers had dropped in price from 50 thou to about 10/15 thou and before long they would be within reach of us all. Canon has introduced a Laser printer for PC's priced at \$3500 that will print 300 dots per inch and has speeds of 850 CPS or eight pages per min. It uses the Canon copier mechanics and has cartridges that hold enough toner and developer to do 3000 pages. It will also have multiple fonts on ROM cartridges. While the price is still out of reach of the "home" user, it still shows what lies ahead, and not all that far ahead either. Pretty soon the only difference between a "home" system and a "professional" one will be the use it's put to, not its power or the peripherals attached to it.

I TOLD YA SO

(WALL STREET STYLE)

There was a move some time back to outlaw fortune tellers, astrologers and/or anyone who supposes to tell the future for money. If they have passed or do pass such a law in the future another group of questionable seers should be added to the list. Those are your friendly Wall St. analysts. I would put more faith in astrologers than these so called stock market experts. Now the Wall St. wise guys are saying "I told you so" in pointing out the fact that there is NO market for "home computers". The basis for this conclusion was the announcement that IBM is dropping the PCjr computer. Well any fool could see that if IBM can't make in this phantom "home market" no one can. It couldn't be that Big BLUE mis-handled the Jr from the beginning, could it? RUBBER keyboard, no memory to speak of and this fear that it would cut into the sales of the "semi-sacred" PC. So they did every thing to discourage sales in the beginning and then pulled it from the market when they realized that it was overpriced for THAT market nich, and

they couldn't make their anointed profit margins if they priced it realistically. If the autmakers have an off year maybe they'll say that the Horseless Carriage fad has run its course, and maybe Ford should drop the Mercury division because it cuts into sales of the Ford line. If there is or isn't a home market should be determined by this time next year. If Atari and Commodore have good sales with their new systems I guess we'll have to redefine the "home market". If not, well, what am I going to do with all these computers? And I do hope that Commodore has a good year and Atari a better one. If you only have one brand to choose from the products tend to stagnate and the consumer suffers in the long run. Oh well end of rantings for this month.

GOOD NEWS, BAD NEWS TIME

The good news is that Atari claims to be on schedule for delivery of the new computers. We're supposed to see them around the middle of April. The bad news for you music lovers is that the music machine version of both the 8 & 16 bit computers has been postponed indefinitely. Seems they're having some problems with the 16-voice chip that would be the heart of the system. One other newsy item is that Atari is again courting "real" dealers to handle the new systems. Which could mean that the prices may hold nearer the list for a while longer than you've been used to lately.

THIS IS IT

CP/M--ATR Meeting

... Thur. April 11th, 7:30pm
Board of Directors Meeting

... Thur. April 18th, 7:30pm
MILATARI East (Ambruster)

..... Sat. April 20th, 2pm
MILATARI West (Waukesha)

... Thur. April 25th, 7:30pm
Remember Broderbund will be at the meeting on the 20th, be there.
See you on the 20th. Bye.....

8 ATARI EXECS MEET USER GROUP

PRODUCTION 520ST & 130XE SHOWN

APRIL INSTORE DELIVERY PLEDGED

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by MICHAEL CIRAOLO Antic Associate Editor

SAN LEANDRO, Calif.--A panel of eight to Atari executives headed by AtariSoft president Sig Hartmann demonstrated production units of the new XE and ST computers at the San Leandro Computer Club on March 5 and pledged that the powerful new machines will be on retail shelves in April.

According to research and development vice president Shiraz Shivji, the new 16-bit ST computers will be shipped with Logo, but users will have to buy BASIC separately. However, other Atari spokesmen later told Antic privately that the decision not to include BASIC may still be changed.

Atari has also postponed plans to produce an 8-bit portable computer, due to lack of interest. Instead there will be a 16-bit portable ST.

Also, plans for an XEM 8-bit music computer have been postponed indefinitely due to problems with finalizing the AMY sound chip.

Shivji and John Feagans, who is responsible for the 16-bit computer's operating system, held the audience spellbound as they demonstrated the incredibly fast color window/icon/mouse abilities of the ST -- dubbed the "Jackintosh" for its resemblance to Apple's Macintosh.

Feagans and Shivji also wowed the computer club by displaying the entire palette of 512 colors simultaneously on the ST.

"It's taken seven or eight months to

develop, but it's real! The plastic is real! We're doing everything we can to get you the STs," Hartmann said.

"We believe it's faster than the IBM AT," Shivji said. "I think this'll be one of the sweetest machines for hackers."

Shivji said the chips in the new computers are soldered, not socketed. He encouraged expansion of the STs through the Direct Memory Access port, which he said transfers data at 10 megabits per second. He also said the largest ROM cartridge the STs can accept is 128K.

Hartmann presented much of the standard New Atari rhetoric. "We want a lot closer ties to user groups. We're interested in better communications, helping fix problems and hearing criticism," he told the audience of 200.

In an unprecedented display of corporate openness, Hartmann was joined by the software product manager for the XEs, the product manager for the STs, the head of ST OS/GEM development, Atari's general counsel, and the vice presidents of finance and research and development, and the editor of the Atari Explorer. The entire group answered questions for over two hours.

Atari is currently selling a professional development package for the 16-bit computers, said Hartmann. For \$4,500, a developer will receive an ST computer, an RGB color monitor and a high resolution monochrome monitor, two 3.5-inch disk drives and C tools, including a compiler, linker, loader,

8 ATARI EXECS MEET USER GROUP (Continued)

assembler, debugger, editor, uploader/downloader and full technical specifications.

Atari is also seeking qualified people to write and test software for the new 8-bit XE machines, according to Hartmann.

"The 8-bit line is still alive and well. All new software will run on the 800XL and 65XE, but will automatically look for and use the extra 64K RAM in the 130XE," said John Skruch, software product manager for the 8-bit line.

"Private software developers are already writing for the XEs. Hayden Software is converting Sargon III, the chess program," Skruch said.

Richard Fricke said he expects to have 25 to 30 software packages on sale when the STs are released in April.

Fricke, Hartmann's second-in-command, also promised that the XEs are more solid than the 800XL. "If you lift your 800XL one foot above a table and drop it -- gently -- you'd probably lose an AtariWriter file. That won't happen with the XEs."

Although Atari chairman Jack Tramiel previously said he would sell no software for over \$49, Hartmann now said that no software would cost more than \$100, but most Atari software would still retail below \$50.

Those packages will include home productivity, business, education and entertainment software, in order of importance to the new Atari Corp, Fricke said.

At the April computer fair in Hanover, Germany, Jack Tramiel will announce a true 32-bit microcomputer, and will also demonstrate the Local Area Network capability of the 8-bit and 16-

bit Ataris, according to Hartmann.

Using the Infinity integrated software package from Matrix Systems, the XEs and STs will support up to 255 Atari terminals linked in a LAN through joystick ports, said Fricke.

The 16-bit ST computers are based on a Motorola 68000 chip running at 8 MHz. These machines will include a keyboard processor chip, which also controls two joysticks or the two-key mouse that is included with the computer.

In addition to joystick and mouse ports, the STs have a cartridge slot, a hard disk port, a floppy disk port, RS-232 and Centronics interfaces, two monitor connections, an RF port for hooking up TV sets, and MIDI (Musical Instrument Digital Interface) in/out ports, said the Atari panel.

The 16-bit 520ST has 512K memory and will cost \$599. The 130ST with 128K memory will retail for \$399. A 500K microfloppy disk drive will also be available for under \$200, said Hartmann.

As previously announced, the 16-bit ST computers will function in any one of three resolution modes. Using a 320 x 200 dot resolution, each dot may be one of 16 colors. In the 640 x 200 resolution, four colors per dot are possible. A monochrome mode offers 640 x 400 dot resolution.

Sig Hartmann and other top Atari executives will meet with officers of users groups from all over the country at 4 p.m. on March 30 in Antic's offices as part of the magazine's third anniversary celebration. More details will be available on CompuServe soon.

* * * * *

ATARI MEETS BCS USER GROUP - 3/27/85 EAST COAST UNVEILING OF 520ST

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By Brian Oliva, SysOp, No. Shore AMIS

BOSTON, MA --The Boston Computer Society General Meeting tonight featured Leonard Tramiel of Atari, as well as Digital Research's Bruce Cohen, and Bill Bowman from Spinnaker, and marked the east coast unveiling of the new 520ST Computer. The meeting filled Boston's New England Life Hall to capacity.

The meeting was kicked off with opening statements from BCS President Jonathan Rotenberg who indicated that he had received numerous complaints after the distribution of the newsletter announcing that the "incredible Atari ST" would be shown at the meeting. Further investigation indicated that the complaints were all coming from people who had just purchased MAC's! A show of hands later in the meeting confirmed that the vast majority of the people in attendance were IBM-PC and MAC owners. It was evident that the new ST's are making waves and getting attention. I think that's a good sign!

Tramiel reiterated the specifications mentioned in previous reports. I won't repeat any more than I have to. It appears that Atari is still on schedule and is still predicting release of the new machines in late April.

When asked what Atari's priorities were on good software, Tramiel replied, "Good software is all we're planning to put out." He went on to explain that many developers were working with the machines, and software would be available at or soon after the computer's release date.

Tramiel was asked where the machines would go upon their release (geographic

distribution) and replied that they would sell them to any one who would buy them. He avoided any answers regarding marketing strategy in general, and would not identify any potential retail outlets.

Unfortunatly, Mr. Tramiel did not have a formal demo package available with him, so the actual demonstration of the machine was exceptionally weak, but Tramiel's enthusiasm, as well as the comments from the other guest speakers, left a good feeling with the dedicated Atarians.

Tramiel described that the versatility of the ST's was enhanced by the multiple ports which include: 128K ROM slot Hard Disk DMA Port (10 Megabit/Sec!) Floppy Disk Port (Daisy Chain) Standard RS232C Port Centronics Printer Port Monitor Output RF (TV) Output (2)MIDI Ports (Musical Instrument Digital Interface, In/Out) Joystick Port Joystick/Mouse Port

Bruce Cohen, from DRI explained the GEM operating system in detail, including how it was being developed in other applications. He indicated that the IBM PC would have a GEM system available in April.

The most positive statements of confidence in the new Atari came from Spinnakers Bill Bowman. He was bubbling with enthusiasm and projected that this was the onset of "new beginnings for the Home Computer Market." He explained that until now, computers didn't serve the home market. They were difficult to use, or were very expensive, and most people didn't NEED personal computers. He stated that the Atari ST's broke all these barriers and was the first exciting thing to happen in the Home Computer industry in over 3 years. Now, programmers had the ROOM to write easy

(Continued on page 14)

INSTALLING THE 65C02 MPU

by Alex M. Stevens

(Chicagoland Atari Users Group - Dec 1984)

The 65C02 MPU is a compatible replacement for the Atari's 6502 processor chip. What you get for your money is mainly of interest to Assembly language programmers in the form of an expanded instruction set and a chip that runs cooler and consumes less current.

The expanded instruction set is very useful to assembler language programmers. Included (depending on the chip manufacturer) are two new addressing modes and 12 new instructions.

NEW ADDRESSING MODES

INDIRECT: this is a non-indexed mode, similar to the JMP Indirect and applies to the following instructions:

ADC AND CMP EOR LDA ORA SBC STA

Now you can code LDA (\$12) instead of LDY #0; LDA (\$12),Y.

INDEXED ABSOLUTE INDIRECT: not as bad as it sounds. It is just application of the pre-indexed INDIRECT,X mode to the JMP instruction, ie: JMP (DOSINI,X). Very useful for JMP tables.

NEW APPLICATIONS OF OLD MODES

1. INC and DEC now work on the accumulator
2. The BIT instruction adds IMMEDIATE, ABSOLUTE,X, and ZERO-PAGE,X addressing modes.

NEW INSTRUCTIONS

BBR Branch on Bit Reset (clear)
BBS Branch on Bis Set
BRA BRanch Always (HOORAY!!)
PHX Push X onto stack
PHY Push Y onto stack

PLX Pull X from stack
PLY Pull Y from stack
RMB Reset (clear) Memory Bit
SMB Set Memory Bit
STZ STore Zero
TRB Test and Reset (clear) Bit
TSB Test and Set Bit

The instructions that most immediately got my attention was BRA. No more CLC BCC sequences.

THE ACTUAL INSTALLATION

For this job I used the article in Issue #10 of ANALOG Computing titled "Installing your own GTIA chip" by Richard Herring. The article is well illustrated with photos and made the job much easier. Based on warnings from Al Scrock, I was extremely careful to ground myself when working with the actual chips. I used a length of speaker wire wrapped around the kitchen faucet at one end and my hand at the other. Before proceeding, I tested the ground with an ohmmeter.

After removing the 800 to the kitchen table and removing the RAM cards and the OS ROM board, I took a phillips screwdriver and carefully disassembled the 800 according to Herring's instructions. The objective was the CPU board which sits at the back of the 800 behind the last of the 3 RAM board slots under the metal RF shield. The CPU Board was carefully removed and the workarea cleared.

At this point I took the ground wire and wrapped it around my left hand. I would be touching the chips directly and any static charge on my body could blow the sensitive chips on the board out of the water for good. I was also wearing cotton clothes (synthetics, particularly nylon, can generate surprisingly high voltages) for additional protection. I located the 6502 at the right side of

(continued on page 14)

ATARI[®] EXPLORER[™]

SUBSCRIBE TO 'ATARI EXPLORER' AND HELP YOUR CLUB RAISE FUNDS!!

We have been given the opportunity to raise funds for the club by selling subscriptions to 'ATARI EXPLORER'. This magazine is being published by Atari Corporation. If you have not had a chance to look over an issue, stop by the publication library at the next meeting and take a look - it is a very fine publication for Atari owners.

When you subscribe through the club, we will retain a portion of the fee for our club. The magazine is published 6 times a year and Atari will accept subscriptions for 6 issues (1 year) or 18 issues (3 years). The extended subscription saves you \$15.05. The club will retain \$3 for each 1 year subscription and \$10 for each 3 year subscription.

To insure that MILATARI will share in your 'ATARI EXPLORER' Subscription, you MUST place your order through the club. Do this by providing us with the subscription information (name, address, term ordered, and payment) and send to our treasurer, Steve Tupper.

'ATARI EXPLORER' Subscription order form

6 issues @ \$15.00 18 issues @ 39.95

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Make your check payable to: MILWAUKEE AREA ATARI USERS

Send to: Steve Tupper
6909 West Florist
Milwaukee WI 53218

```

100 REM *****
110 REM *      *****
120 REM *      LJK LABEL *****
130 REM *      *****
140 REM *****
150 REM *      BY Mike McMahon *****
160 REM *****
170 REM *D:LJKLABEL.BAS *****
180 REM *      *****
190 REM * A PROGRAM TO PRINT DISK *****
200 REM * JACKET LABELS FOR LJK *****
210 REM * LETTER PERFECT AND DATA *****
220 REM * PERFECT DISKS. *****
230 REM *      *****
240 REM *****
250 DIM A$(50),B$(20),T$(27),F$(20),CS$(1)
251 DIM MRSET$(8),TTL$(8),DIR$(8)
252 POKE 710,130:POKE 712,130
253 GOSUB 12010:REM ** LOAD PRINTER CONTROL CODES
257 REM *****
258 REM *****
259 REM *****
260 PRINT "R":TRAP 10000:OPEN #7,8,0,"P:",""
270 REM ** MASTER RESET FOR EPSON..<ESC>(64)
280 PRINT #7:MRSET$ 
290 S=4:REM ** S= N COLUMNS, 4 FOR JACKET SIZE
300 PRINT "INSERT LJK DISK IN DRIVE 1"
310 PRINT "RETURN WHEN READY";:INPUT A$
320 ? :PRINT "TWO SIDED DISK? (Y/N)"::INPUT F$ 
330 REM ** POKEs SET SECTOR OFFSET FOR LJK DIRECTORY AND VTOC
340 POKE 4226,107:POKE 4264,106
350 OPEN #1,6,0,"D:*,*"
360 PRINT #7:PRINT #7
370 ? :PRINT "INPUT TITLE (20 CHARS. MAX)":? :INPUT T$ 
380 GOSUB 1000
390 CLOSE #1
400 IF F$="Y" THEN 610
410 ? :? "DO YOU WISH TO CONTINUE (Y/N)"::INPUT B$:IF B$="N" THEN 810
420 GOTO 300
600 REM *****
601 REM *****
602 REM *****
610 ? "DO YOU WISH TO THE DISK (Y/N)"::INPUT C$ 
620 IF C$="N" THEN 410
630 T$="OTHER SIDE"
640 CLOSE #1
650 OPEN #1,6,0,"D:*,*"
660 PRINT #7
670 GOSUB 1000:CLOSE #1:GOTO 410

```

```

800 REM *****
801 REM *****
802 REM *****
810 ? "ENTER 'Y' FOR FORM FEED (Y/N)"::INPUT B$:IF B$="Y" THEN PRINT #7;CHR$(12)
815 REM *****
820 POKE 4226,105:POKE 4264,104:CLOSE #7
830 END
990 REM *****
991 REM ** PRINT LABEL ROUTINE
992 REM *****
993 REM ** TITLE SETUP, EPSON MASTER 5 ELECT FOR DBL-STRIKE
994 REM ** EXPANDED ELITE, AND UNDERLINE TOGGLE ON
995 REM **      <ESC>"!"<(49)><ESC>"-1"
996 REM **
997 REM ** TITLE STRING = T$
998 REM **
1000 PRINT #7;TTL$;T$ 
1005 REM **
1006 REM ** SET MODE FOR DIRECTORY LINE
1007 REM ** TURN OFF UNDERLINE, AND SET DBL-STRIKE COMPRESSED.
1008 REM ** <ESC>"-8<ESC>"!"<(20)>
1009 REM **
1010 PRINT #7;DIR$ 
1012 F=708:U=0
1017 REM **
1018 REM ** PRINT DIRECTORY LINES
1019 REM **
1020 INPUT #1,B$ 
1030 IF B$(5,8)="FREE" THEN 1120
1032 F=F-(VAL(B$(15,17)))
1034 U=U+(VAL(B$(15,17)))
1040 PRINT #7;B$(2);
1042 PRINT B$ 
1050 FOR A=1 TO 5-1
1060 INPUT #1,B$ 
1070 IF B$(5,8)="FREE" THEN 1120
1072 F=F-(VAL(B$(15,17)))
1074 U=U+(VAL(B$(15,17)))
1080 PRINT #7;" |";B$(2);
1082 PRINT B$ 
1090 NEXT A
1100 PRINT #7;" "
1110 GOTO 1020
1120 PRINT #7
1122 A$="""
1123 A$=STR$(F)
1124 A$(LEN(A$)+1)=B$(4)
1126 A$(LEN(A$)+1)=" | "
1128 A$(LEN(A$)+1)=STR$(U)
1130 A$(LEN(A$)+1)=" SECTORS USED"
1138 PRINT #7;A$ 
1140 RETURN

```

```

10000 PRINT "PRINTER ERROR! TURN ON PRINTER":PRINT "AND HIT RETURN":INPUT B$ 
10010 CLOSE #7:GOTO 260
11000 DATA 27,64,0,0,0,0,0
11001 DATA 27,33,49,27,45,49,0,0
11002 DATA 27,45,48,27,33,28,0,0
12000 REM *****
12001 REM *****
12002 REM *****
12010 MRSET$="""
12020 FOR I=1 TO 8
12030 READ X
12040 MRSET$(I,I)=CHR$(X)
12050 NEXT I
12100 TTL$="""
12110 FOR I=1 TO 8
12120 READ X
12130 TTL$(I,I)=CHR$(X)
12140 NEXT I
12200 DIR$="""
12210 FOR I=1 TO 8
12220 READ X
12230 DIR$(I,I)=CHR$(X)
12240 NEXT I
12300 RETURN

```

HARDWARE/SOFTWARE REVIEW

"US Doubler" and "SpartaDOS"

THE
TORONTO ATARI FEDERATION
NEWSLETTER

by Dave Keffer

WOW!!! For all of you who have an Atari 1050 Disk Drive, this is an absolute must!

When I had finally had enough of single density (I have not used Atari 'dual' density since the day I bought my drive, after which I put away DOS 3 forever), I went out and got the Doubler. I had been talking to people about the installation, and had been told that it was quite simple - no soldering, either! So I decided to save the extra \$10 or so and put the chips (2) in myself. I have dabbled with electronics in the past, so how far wrong could I go replacing two chips and connecting one wire? I dismantled my drive and looked at the board - no problem! I replaced the chips, pushed the wire into a pin socket of a third chip, and that was that. Then I reassembled the drive, turned the switch, and NOTHING!!! The power light came on, but the motor didn't engage! What had I done?!

So I dismantled the drive again and reread the installation instructions. It turned out that there are about five little wires called 'jumpers,' of which numbers 2 and 4 should be closed, and 1 and 3 should be open. I hadn't paid much attention to this, as the instructions said that they had never seen a drive with the jumpers in the wrong position. I looked at the board again and, sure enough, 1 and 3 were closed instead of 2 and 4! When I had remedied this (by clipping and soldering) the drive ran beautifully.

The first thing I did when I had the drive hooked back up to my computer was to boot a disk with SmartDOS on it, and try to format a disk in double density. Great! - I had now doubled my storage. Then I booted the SpartaDOS disk which came with the doubler, and sat there stunned for about 3 microseconds while it booted up!! This thing is **FAST!!!** You really can't appreciate the sheer speed without hearing the beeps as the disk boots up. I'll be demonstrating the package at the next meeting, and I'll be sure to turn up the volume.

Besides the incredible speed (which alone would justify the purchase), SpartaDOS is one of the most powerful DOS's I have seen for the Atari. It is much more reminiscent of a professional DOS, with disk volume names, multiple directories, command files, memlo monitor, and batch file processing. And the file convert/copy utility is excellent - it will perform single or dual drive file transfers from any Atari compatible source format to any compatible destination format (eg - it will convert DOS 2 files to SpartaDOS or the reverse)!! The only catch, and this isn't too hard to take, is that the UltraSpeed hardware only works with disks which have been formatted with SpartaDOS using the 'sector skew' - other formats just boot at the usual speed.

This is really a superb enhancement for the Atari 1050 Disk Drive. I suggest that all of you who own one RUN, not walk, to the nearest dealer before he runs out!

BCS News (Continued)

to use programs at a reasonable price. were limited to 8K ROM, 64K maximum environments. Simply put, the ST=Freedom!

Bowman indicated that Spinnaker would continue to support and expand their line for the Atari systems. He said that the first programs to be developed for the ST's by them would probably be adventure games, following later on with Educational and "Productivity" Software in time for Christmas. He said most software would be in the \$49-\$59 range, and was looking forward to "seeing the new beginning with the Atari ST's."

* * * * *

65C02 (continued)

the CPU board in socket A303. It is marked '6502' on the top, for additional confirmation. I carefully removed the 6502 and began the job of installing the 65C02 in its place.

Invariably, the pins on a new chip will not line up properly with the slots in the socket. This requires careful bending of the pins to line up correctly, since all pins must seat properly for the chip to work. To correct the pin alignment I carefully placed one long edge of the chip on the table top and rocked it to one side, bending all 20 pins at a time slightly inward. Then repeating the procedure with the other edge and checking the fit in the socket. The pins require a moderate amount of force to bend as a group, but any one pin can be bent very easily, so extreme care is called for at this stage. Finally, the chip began to slip into the socket and I stopped and double-checked the pin alignment before pushing it home in the socket.

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